South Texas Educational Liaison of Laboratories for Agricultural Research (STELLAR)

Dr. Jonda Halcomb[1],Dr. J. Robert Hatherill[1], and Dr. Kirk Cammarata[2]

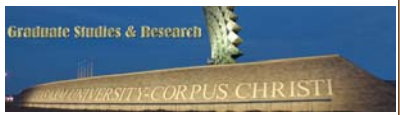
[1]Del Mar College and [2]Texas A&M University, Corpus Christi, Texas

Award Number: 2007-38422-18084

Amount: $230,000

Institutions and Agencies Involved:

STELLAR is a **Regular Project** with cooperative linkages between Del Mar College and Texas A&M University-Corpus Christi and Texas A&M University Kingsville, three Hispanic Serving Institutions. USDA agencies such as the Texas Agricultural Research and Cooperative Extension are also involved.



Texas A&M University-Corpus Christi
The Island University

TEXAS A&M UNIVERSITY KINGSVILLE

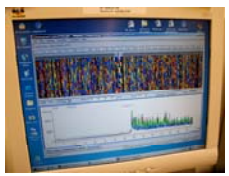
CREES/USDA Relevant Priority:

Project goals aligned with two USDA and CSREES Strategic Goals (Objectives 2.2, 4.2) are to : **(1) train under-represented, under-served and first generation students in leading-edge agro-technologies as a means to attract more students into agriculture-related careers and to reduce attrition from science programs; (2) improve scientific literacy for teaching and instructional delivery systems in biological and agricultural sciences; and (3) assist in reducing mycotoxin contamination of food through research, education and crop testing**.

USDA Collaborator:

EXTENSION

USDA agencies such as the Texas Agricultural Research and Cooperative Extension are involved as collaborators.



Objectives

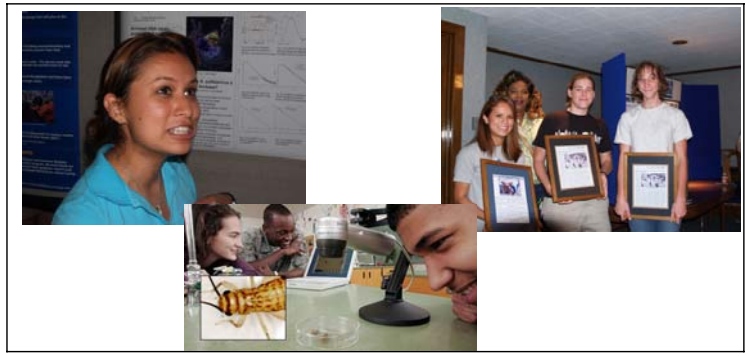
The primary goal of STELLAR is to ***increase the number of students earning degrees in agricultural science and improve recruitment, and retention of under-represented students.*** The project goals and outcomes will be accomplished through **four objectives**:

1) Enhance the agro-technology curriculum and seminar series
2) Improve the delivery for different learning styles
3) Promote awareness of agro-science
4) Provide funded research experiences supporting the local agro-economy

Activities:

TABLE 1
STELLAR PROJECT ACTIVITIES and TIMETABLE

	Activities	Project Year 1 9/1/07-8/31/08				Project Year 2 9/1/08-8/31/09				Project Year 3 9/1/09-8/31/10			
		Quarter				Quarter				Quarter			
		1	2	3	4	1	2	3	4	1	2	3	4
Develop the new agro-technology curriculum (Aligns with Objective 1)													
A	Implementation of new agro-technology program												
B	Utilize new computer technology												
C	Develop faculty proficiency in new technology												
D	Develop inquiry-based instructional exercises												
E	Test and review inquiry-based exercises												
F	Develop STELLAR Website												
Develop computer resources to improve the instructional delivery while considering differences in student learning style (Aligns with Objective 2)													
A	Design and develop individual and team based Computer based learning activities for agro-tech												
B	Develop STELLAR agro-tech curriculum												
Implement Fall institute (Aligns with Objective 3)													
A	Plan one-day Fall Institute												
B	Recruit Fall Institute participants												
C	Conduct one-day Fall Institute												
D	Disseminate Fall Institute materials												
Implement funded summer undergraduate research experiences (Aligns with Objective 4)													
A	Recruit high achieving STELLAR students												
B	Selection committee reviews internship applications												
C	Award STELLAR internships with partners												



Beneficiaries:

STELLAR will impact over **1,000 DMC students** through seminars, courses, and research. ***Measurable outcomes*** *include: increasing the number of earned degrees in agriculture, improving student research and project management skills and increasing retention and transfer of under-represented students. It is expected that 5-10% of STELLAR students will continue onto advanced studies in agriculture.*

Evaluation:

TASK AREAS	FORMATIVE/SUMMATIVE SUPPORT PROVIDED
Initial and in-process planning and scheduling of events and resources	Assistance in estimation of personnel, level of support, type of support, scheduling deliverables and outcomes
Design/develop content and function of web site	Provide models and recommendations for design and functionality—design oversight
Provide new inquiry-based learning activities to motivate students and engage them in "real-world" problem solving using scientific methods and equipment	Provide design, development process, and implementation guidelines and support; Develop assessment and evaluation instruments; Collect and analyze data
Increase student interest and motivation toward careers and degrees in biological and agricultural sciences	Measurement instruments and methods implemented and used to infer achievement of this objective
Provide annual evaluation reports that report and guide progress in Years 1 and 2 and report summative impact of project at end of Year 3	Cumulative combining of all of the above information, instruments, and results.

Expected Impact:

STELLAR will impact over **1,000 students** through seminars, courses, and research. The principal expected impact of STELLAR is improvement in at least **four courses** and teaching labs related to agro-technology at both DMC and TAMUCC. In conjunction, the curriculum in these laboratories will be updated and integrated with other courses. Another anticipated impact is the increased number of undergraduate students receiving training in the area of agricultural science.

This work is supported by the United States Department of Agriculture under award number 2007-38422-18084.

USDA United States Department of Agriculture

CSREES EDUCATION RESEARCH EXTENSION USDA

what's your dream?